

## **METHODS FOR SYNTHESIZING REPORTER LABELED BEADS**

### **Abstract of the Disclosure**

Methods for constructing reporter labeled carriers (such as beads) using a plurality of optically distinguishable carriers for chemical synthesis or attachment, such that the number of unique reporters required to label a carrier is reduced. One embodiment employs carriers that themselves have optically distinguishing characteristics. A carrier's identity is encoded by the combination of the optical characteristics of its reporter set, as well as the optical characteristics of the carrier itself. In other embodiments, different reporters are discriminable based on the intensity of their color labels, their size, and/or other optically detectable characteristics, and not necessarily by the presence or absence of particular colors. Another embodiment is directed to generating a plurality of reporters from a plurality of singly labeled micro-particles. The present invention can be employed in conjunction with a split/add/pool (SAP) or a directed synthesis process.